

THE INTRODUCTION TO THE ISSUE OF THE SPECIALISED HIKING TRACES AT THE BACKGROUND OF THE MOUNTAIN BIKING PROGRESS IN THE WORLD AND IN SLOVAKIA

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Abstract: *The mountain-biking was established in Slovakia in the last decade of the 20th century. Author participated at the very first researches of MTB since the 1996. The first part of the work includes the history of MTB in the world and its reflection in Slovakia. Then it specifies the regions of MTB activities in the world and in Slovakia. In the article the author introduces the notion of singletrack as a specialized hiking path, he proposes the scheme of singletracks evaluation by valorisation and a typogram with 12 evaluating features. The most important result of the work is the specification of the function of geography of tourism on examination and advertisement of the mountain-biking.*

Key words: *singletracks, mountainbiking, typology, mountainbiking regions in Slovakia*

INTRODUCTION

The mountain-biking was established in Slovakia in the last decade of the 20th century. It is perceived in terms of etymology either as the sport branch of biking, or as one of the newest and the most dynamically improving forms of the hiking activities. The popularity of the mountain-biking in Slovakia is the result of very attractive nature conditions of Slovak highlands, which cover the major part of the country, i.e. 55,1% of the area, and consistently improving the social-economic conditions of the majority of people (according to older literary sources, e.g. M. Lukniš (1972) says that the mountainous area covers about 59% of the area, according to the flora grades, R. Midiriak (2005) claims, that the mountainous area covers only 13% of the land). However, our experiences and the first research depict that even though there is a huge possibility to get several different techniques of the mountain bikes, only a very small and a specialised group of mountain bikers are interested in biking at the inter-mountain and mountain areas.

The aim of this study is to show on the potential of Slovak highlands for the mountain-biking use, its` historical and geographical coherence of progress, the potential of hiking traces net, and the efficiency and ecological capacity of building the single tracks of the mountain-biking usage.

Not only the huge experience but also the heuristic methods, the methods of historical and geographical research, expertise methods, SWOT analyses and comparable methods are applied in the study.

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THE ORIGIN AND DEVELOPMENT OF MOUNTAIN BIKING

The history of origin of the mountain-biking was established in the USA in 1973. Three biking fans, Gary Fisher, Charles Kelly and Joe Breeze moved from a hippies' group in San Francisco to the mountain-biking in Fairfax rural surroundings. They have begun to enjoy riding on the steep up-hills. Moreover, they have begun to use not only huge made-over bikes on Mount Tamalpais hills, but also they have made them later for the cross riding (Muntág, S. 1993). After joining Tom Richie into the business, there have been established first two companies for production "mountain bikes" – Ritchie and Specialized. Technical requirements of bikes have established the first sub-groups of biking-technique into mountainbike (MTB) and all terrain bike (ATB). These technical sup-groups have gradually extended in a way to be able to provide the appropriate sport-technical equipment for all hiking accessible terrains and its users. As a result, nowadays there is within the group of bikers (tourists and trained bikers), who are focused on the cross country (XC – widely understood mountain terrain), enduro (bikers mainly riding on the short circles with fast rides and overall sprung frames), downhill (mainly focused on downhills), but also the combination of types mentioned above (e.g. fix track with soft terrain involved prefer so-called cross hiking bikers, the ride on made-up built circle so-called BMX, or so-called freestyle riders with acrobatic stunts).

The mountain-biking origin influenced in the world these important factors:

- Fashion movements back to the nature. The „green thought” has become very attractive in the USA especially after the social mare from the Vietnam War and the first wave of the oil crisis.
- Development of new technologies. They have allowed construction fix enough and lightweight bikes, which have been properly made for the ride in terrain. Furthermore, the new technology of sprung bikes and lite hi-tech frames, e.g. carbon ones, has been applied.
- Mass motorization, which originally pushed out the road bikers and mountain bikers from the most frequent and dangerous roads to terrain (by the way there originally belonged also the seller of road bicycles Gary Fisher).
- The business success and management technology, mainly of Japan companies (Shimano), which have engrossed the production of accessories and their sale has globalized.
- Joining of particular networks has become organized. Influential sport-public associations and organizations has been established gradually, which has been focused basically on marking the hiking traces, building and its maintaining (single-...), the organization of events, the popularization of mountain biking etc.

The first organizations, which have focused on the mountain-biking in the world, belong a north-american IMBA (International Mountain Bicykling Asociacion) established in 1988. Membership base guarantees the internationality, which is organized in particular divisions in the USA, Canada, abroad, it means that is possible to join in it any other clubs. The main effort belongs to (www.go.imba.com). The main issue, which is rooted in this membership, is: making new specialized traces, its supervising, public relations, organizing and providing the training and camps etc. In addition, many others free public associations and organizations have developed their activity in the USA, which support the progress of mountain-biking. One of them is also MTF - Mountain Trails Foundation

based in 1994, of which the main aim is the building, maintaining and popularization of all the hiking traces and paths for all tourists.

The similar one called ČEMBA organization was established in Czech Republic in 2007, in Slovakia there is SloMBA (Slovak Mountainbiking association) based from 2008, located in Prešov. The historical predecessors of SloMBA were primarily mountain biking clubs. They were established in 1989, when the first mountain bikes were imported to Czechoslovakia. For example, C.B.S. MTB club in Vrútky came into existence in 1992 (Vojtanovská, 1996). After the democracy birth many new biking groups has been established in the first decade of this period, to which belong e.g. BBBikers in Banská Bystrica (www.bbkiers.sk). SCK – Slovenský cykloklub has come into existence in 1994 located in west Slovakia, which was focused on mountain-biking activities. One year later the first Dubnický MTB biking tour took place as an official tournament.

SINGLE-TRACKS – SPECIAL HIKING TRACES

Tradition of marked hiking traces in Slovakia dates back to Austria-Hungary period. The first hiking club was established in 1863 in Banská Štiavnica (Slimáková, 1972). There are nowadays about 900 km of marked hiking traces in Slovakia. One quarter of them is used very intensively by mountain bikers.

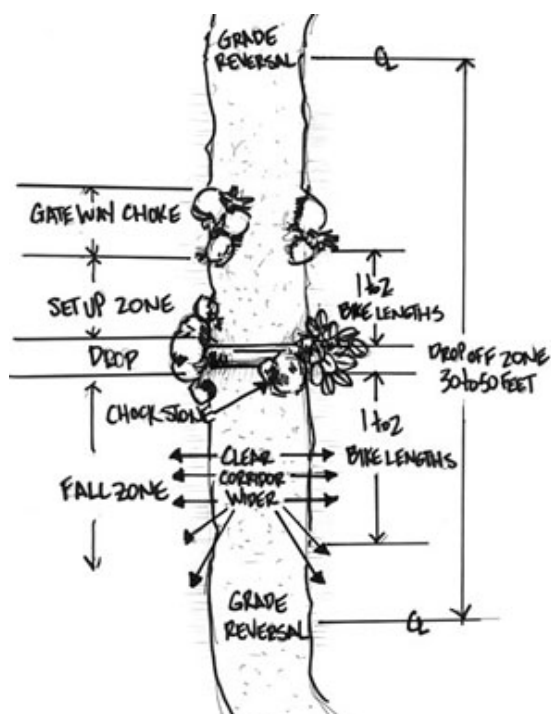
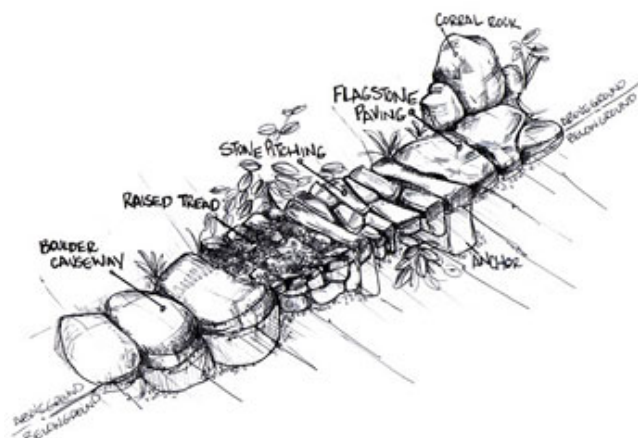
Biking single-tracks have come into existence in the USA with the beginning of mountain bikes. Their methodology takes origin from the manner, of which the walking and horse paths have been made. The hope of success has forced the woodsmen from Scotland and Wales to build the biking traces ten years ago. ČEMBA summarized five most important reasons for building single-tracks into following motto:

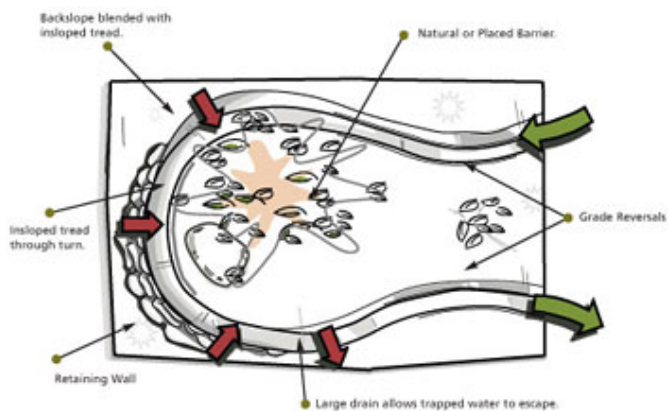
- more nature
- more fun
- more ride
- more opening hours
- more security

The trace 1,8 m wide has got nature terrain, it cannot never rise more than the half of the propensity of down-line and the sector of the trace would never have the overall propensity more than 15%. The crown of the path is wholly gashed into the hill and it is slightly declined in a vertical way to take away the water. Path changes very often the propensity and direction in a short sector on its way forward. It protects the water flow not to take the speed, which causes the erosion. This type of the trace also controls the speed, in which the bikers can ride on.

Single-track is a cheap one, if it is properly made, it requires minimal maintenance. One kilometer of an asphalt biking trace can cost more than three million Slovak crowns, one kilometer of single-track may cost 100 – 300 thousands up to the type of terrain. Single-track harmonizes different various groups of users, bikers, walkers as well. There are no restrictions and commands needed, bikers can ride only in such a speed, which does not threaten the others. Single-track represents the less impact into the nature processes, it grows with the age and joins it, too. The old hunting traces are the most similar to the single-tracks in Slovak and Czech conditions. These are built in a way not to make the hunter gasped and enable to spot. Therefore, they follow the hills in slight and steady propensities. On the other way, high – tech single-trace is composed in a way to please body and soul of mountain biker. They are more skilfully active and visual.

Methodology of locations, building, maintenance and using of single-tracks highlight IMBA members through national MTB associations and clubs. The pictures taken from the studies of H. Hermanová (2007, 2008 a, 2008 b) and web sites of ČEMBA and SloMBA illustrate the basis of the building and advantages of single-track usage in the mountainous terrain.





Sideslope grade of 25% or less is best.



However, in Slovak conditions it is also very important for the value of an active mountain hiking so that the roads of industrial use provide mild conditions for mountain-biking or walking. Hiking traces, which are used, would have to be managed on the base of nature terrains, which is one of the basic features of single-tracks (Hermová, 2007) (www.slomba.sk).

It may be stated that the word single-track contains:

- specially built hiking mountain-biking trace, which has to protect the natural environment and bikers, too
- methodology of building, maintaining and rules of using the trace

To the first single-tracks in Slovakia belong the sectors of trace on Suchý vrch 738 m.n.m. situated in Kremnické vrchy approximately 3 km north-west from Banská Bystrica.

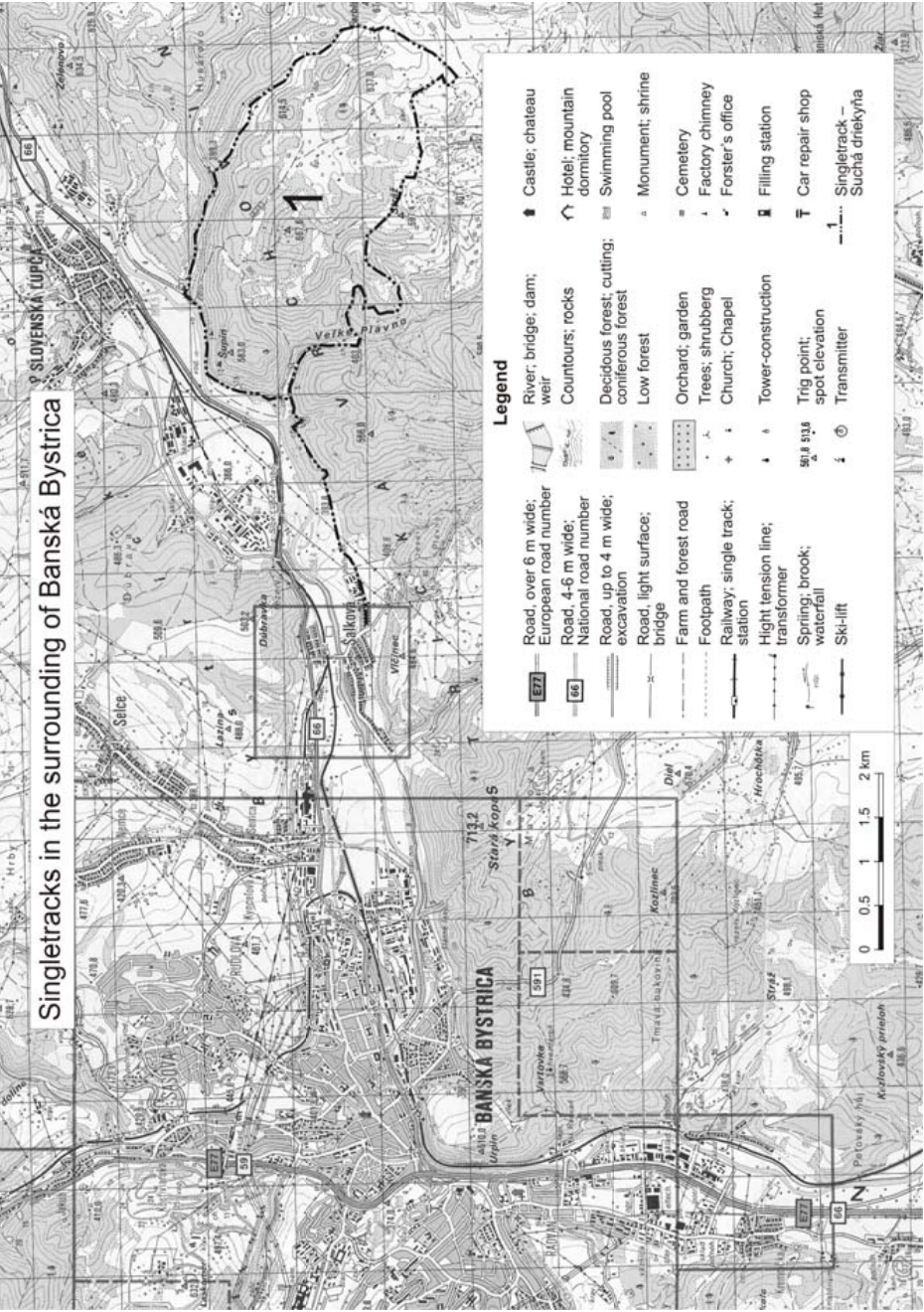
MOUNTAINBIKING REGIONS - INTRODUCTION

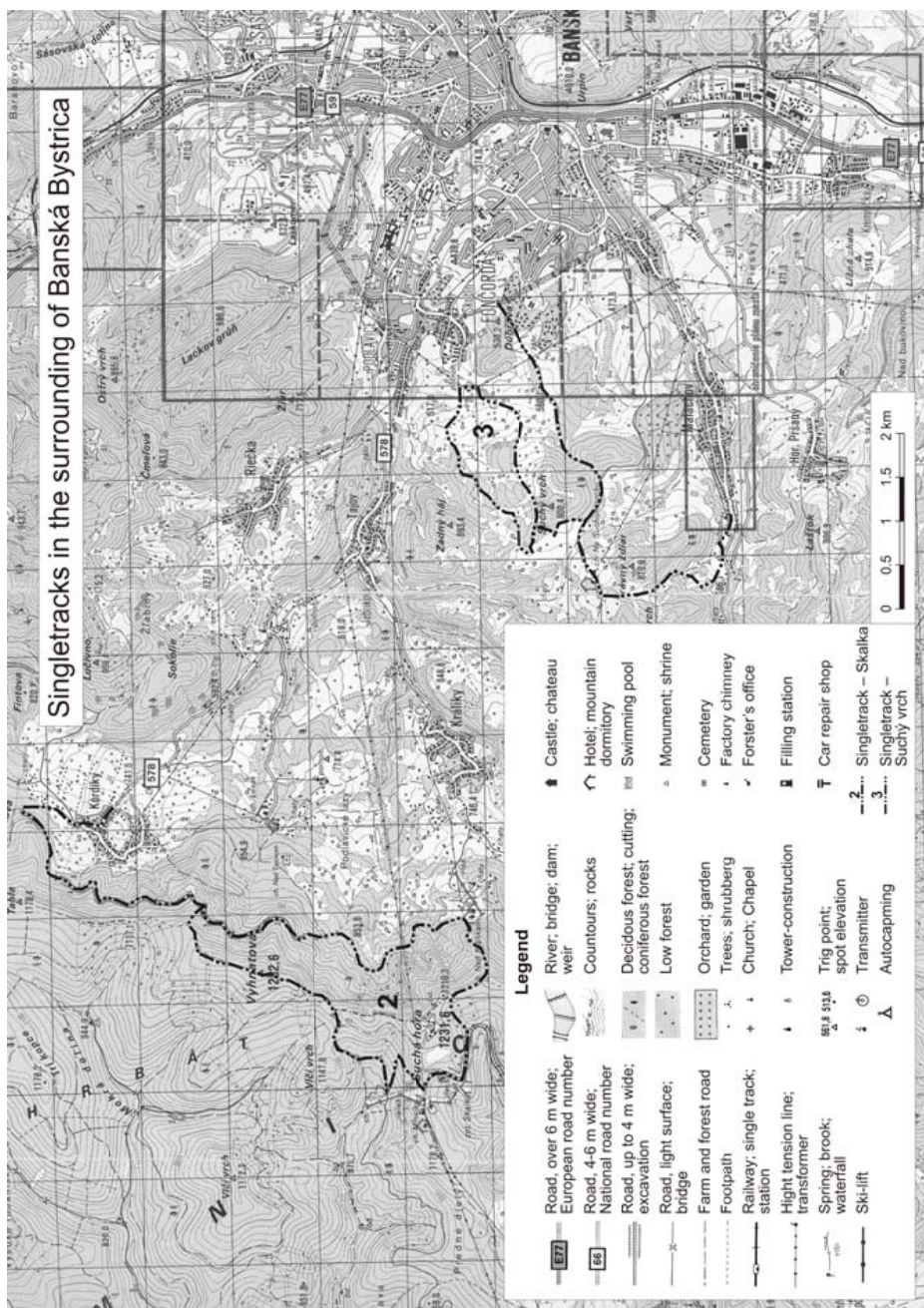
As it is seen from historical development of MTB activities, the first regions of hiking bikers have been formed in the USA. Except California, mountain-biking has extended into the huge area that may commonly called as Rocky Mountains (National Park Rocky Mountains, New Mexico, Utah, Colorado Wyoming, Idaho, Montana a Canadian Rockies). Alaska mountain regions belong to the very important parts, too. Moab, Park City Mountain Resort, Boulder, Nederland, Nhort Star at Tahoe, Anchorage, Nome and others represent the most important biking resorts in the USA.

In Europe there prevail the Alp regions. There are very common in Otztal, Stubaier Alp regions, but also in High Taury and Dolomits areas.

Approximately 5 millions visitors travel every year in Lago di Garda regions in Italian Dolomits. 3 millions of them are interested especially in the mountain-biking activities, the rest is focused on windsurfing, hiking, agrotourism and cultural tourism. There are the largest MTB in Europe, as Riva di Garda, Torbole, Malcesine, Nago, Arco, Limone sul Garda and others. The particularity of this region is the fact that the major part of bikers come from Germany – app. 60%.

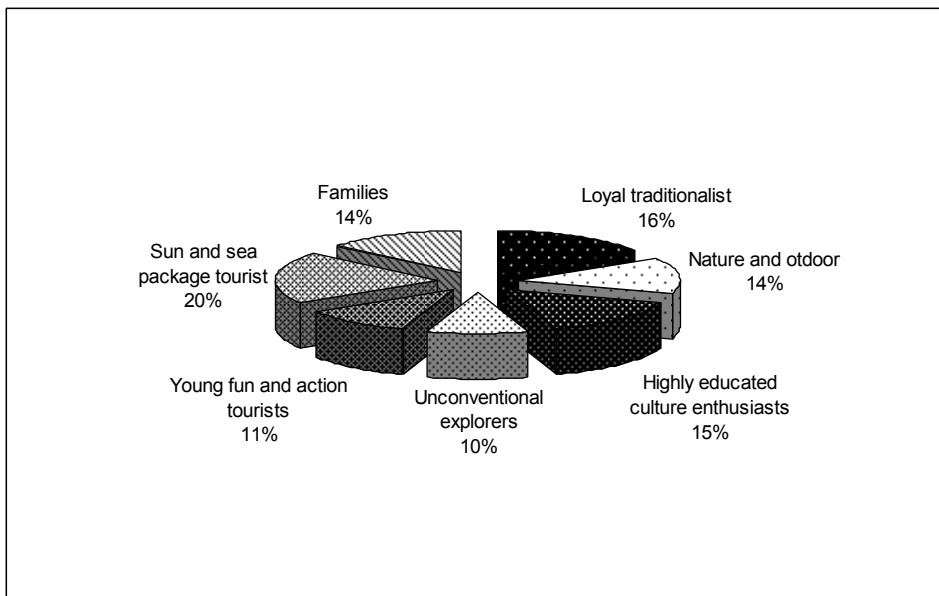
The Germans as the participants of the foreign tourism have very heterogeneous scale of recreational behaviour. There we have to perceive the German bikers from the point of view of final destination. The outdoor activities, including mountain-biking are performed only by about 11% of Germans.





Source: Terrain research

TYPOLOGY OF GERMAN TOURISTS' ACTIVITIES



Source: Environmentally friendly travelling 2006

The most potential regions in Slovakia for MTB progress are the areas of big basin cities with mountainous environment around. There are mainly Banská Bystrica, Žilina, Prešov, Zvolen and Martin.

The typical feature of Slovakia is the fact, that generally the most attractive and the most visited mountain range – The Tatras does not have a potential for the MTB. MTB is completely excluded from the Eastern Tatras, especially from the Belianske Tatras due to the law restrictions of the NAPANT national park. The other areas of the Tatras are from the point of view of relief and conception of hiking traces and traces for MTB practically not available.

The surrounding of Banská Bystrica is very outstanding for the MTB activities. Kremnické mountains, Strahorské mountains, Veľká Fatra and Poľana are typical for their relief variability and relative heights do 1592 m above the sea level – Ostredok and relative height rise over 1200 m. All the mentioned orographic parts have high density of marked hiking traces and MTB traces. MTB traces are concentrated mainly in Kremnické vrchy at the range line of Vyhnatová 1282 m, Suchá Hora, 1231 m, Zlatá Studňa 1265 m and Velestúr 1254 m above the sea level. In the former mining towns and villages there is a dense net of mining roads with the solid base – for example in the line of Polkanová – Piesky – Panský diel, 1100 m above the sea level. In the valley villages area such as Harmanec, Tajov, Králik, Riečky and so on, there is a dense net of asphalt wood path. Some of them propose really outstanding activities: e.g. Moštenica – Kalište, Donovaly – Polianka, or Banská Bystrica – Kordíky. There are about 250 km of marked hiking traces that can be used for the MTB activities in Banská Bystrica surroundings.

SOME PROPOSALS FOR MTB PROGRESS IN SLOVAKIA

The present MTB progress in Slovakia is from the point of view of SWOT analysis influenced by some basic factors.

The advantages are mainly: natural conditions of Slovak highlands, dense net of hiking traces, net of marked hiking tracks, progress of biking traces and single-tracks, organising background MTB and business – service network.

A disadvantage is the weak legislative. The law 61/1977, formed especially with the paragraphs § 52, § 30, § 31 law about the forest from 2008, which are restrictive.

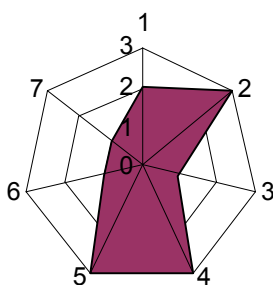
The possibilities, how to develop mountain-biking in Slovakia, are mainly the work of public and of groups of interest, and of the possibilities to gain the financial costs from EU structural funds.

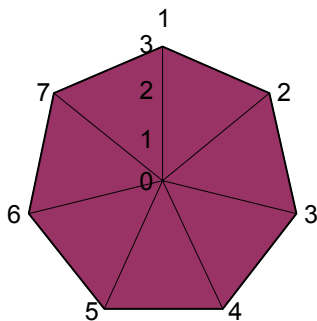
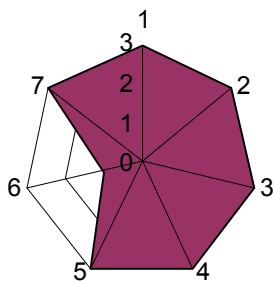
We can see the threads of MTB progress especially in non-adequate public relations. There are some magazines published in Czech Republic, which are related to this issue and made popular mountain-biking and hiking as ecological form of tourism (Velo, Peloton, MTB etc.), on the other hand a positive propaganda is missing in Slovakia.

The popularity of mountain biking has influenced the edition of mountain-biking maps. There are in legend of maps biking traces represented by two features, the total length and rise of the trace.

K. Vojtanovská (1996) approaches to the valorisation with the help of six evaluative features. They are the length, rise, forestness, view attraction, other hiking activities on the trace and frequency of bikers riding on the trace. This more difficult valorisation results into more combinations of the trace typologies, which enable more complex comparison of individual tracks.

**Unbalanced typogram of trace
(6 features)**



Balanced typogram of trace (6 features)**Typogram of trace with one weak part (6 features)**

We have proposed the complex typology of traces by the empirical experience and study of mostly observing values by bikers themselves. Typology contains twelve evaluative features, organized into two groups.

The complex typology proposal of MTB:

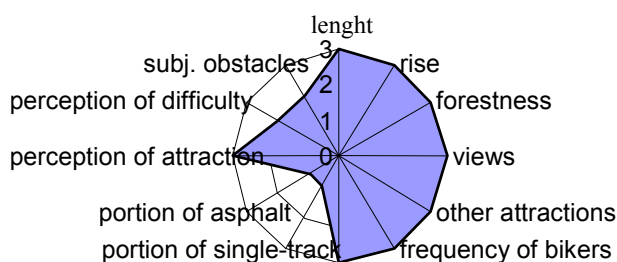
A group of objective valorization of traces, group B – of subjective valorization.

A – trace length

- trace distance from start (length of formations)
- rise length
- trace cover

- amount of views on the trace
 - amount of single-tracks on the overall trace length
 - amount of asphalt, fixed road/terrain
- B – hiking activities on the trace
- perception of the trace attraction
 - perception of the trace difficulty
 - frequency of bikers' and tourists' appearance on the trace
 - subjective obstacles on the trace (transmission, conflict with other kinds of tourism, damaged or destroyed terrain etc.).

Typogram of trace valorisation (12 features)



Tasks of the geography of tourism at theoretical and practical level by studying the mountain-biking:

Geography, mainly geography of tourism, will have to join all the basic stones of its essential scope. The main task is to produce open-space models by the help of holistic approaches, which are mediated and generalized by cartography.

Theoretically, with the research aimed on the MTB issue, we can set these following research tasks of the geography of tourism:

1. To verify the space functions of MTB activities. It means mainly – regional specification of MTB, season of MTB, setting of background of MTB activities (offering and marketing factors), and quantity parameters of MTB activities.
2. The setting of appropriate geographical models of MTB activities.
3. With the most appropriate publication activity to help to raise MTB attraction for sport-hiking public. Geography of tourism has to become the proper supporter of MTB activities and in addition the equal and supplementary partner to all other disciplines, which are studied on that (sports theory, sport psychology, landscape ecology, landscape and trace architecture, economics and management of tourism etc.).

4. Try to generalize in the most possible way the search of mountain-biking forms (cross country, free ride, downhill etc.) and their impacts not only at local ecosystems, but also to identify and eliminate the possible legislative or less formal obstacles of MTB progress. As a result, it is the best to combine basic terrain orders with special methods developed for these purposes (experimental method, methods of social-political lobbying etc.).

Practically, with the research aimed on the MTB issue, we can set these following research tasks of the geography of tourism:

1. To contribute by the terrain measures to ecological knowledge in the level of land-ecological mapping.
2. By the application of human-geographical methods (mainly apprehensive, behaviour, and methodological etc.) to influence on the raising of satisfaction for the users of sport-hiking activities focused on MTB.
3. By the application of human-geographical methods (quantity, intensity measuring of density of marked tracks dedicated to MTB etc.) to contribute to special selection of marked tracks dedicated to MTB.
4. By the cartographic applications and applications of GIS to help with the production of proper biking tracks, software GPS maps, too.

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**ÚVOD DO PROBLEMATIKY ŠPECIALIZOVANÝCH TURISTICKÝCH TRÁS
NA POZADÍ ROZVOJA HORSKEJ CYKLISTIKY VO SVETE
A NA SLOVENSKU**

Zhrnutie

Horská cyklistika (mountainbiking - MTB) sa na Slovensku etablovala v poslednom desaťročí 20 – teho storočia. Autor sa podieľal na prvých geografických výskumoch MTB od roku 1996. V prvej časti je zhrnutá história MTB vo svete a jej reflexie na Slovensku. Ďalej vymedzuje regióny aktivít MTB vo svete a na Slovensku V štúdiu autor vymedzuje pojem singltrek, ako špecializovaný turistický chodník, podáva návrh na hodnotenie singltrekov valorizáciou a typogramom s 12 – tmi hodnotiacimi znakmi. Dôležitým výsledkom práce je vytýčenie úlohy geografie cestovného ruchu pri skúmaní a propagácii MTB.

Recenzenti: Prof. RNDr. Eva Michaeli, PhD.
Prof. Ing. Marian Gúčík, PhD.